

## 16010000 KAWAIKOI STREAM NEAR WAIMEA

LOCATION.--Lat 22°08'09", long 159°37'22", Old Hawaiian Datum, Hydrologic Unit 20070000, on left bank 0.2 mi upstream from Kokoo-Mohihi Road crossing, 2.5 mi east of Kokoo Lodge, and 12.5 mi north of Waimea.

DRAINAGE AREA.--3.95 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1909 to October 1912, December 1912 to March 1913, May 1913 to June 1915, August 1915 to May 1916, July to December 1916, July 1919 to current year. Monthly discharge only for some periods, published in WSP 1319.

REVISED RECORDS.--WSP 555: 1920-21. WSP 1185: 1914-17(M), 1920-38(M), 1940-43(M), 1947(M). WSP 1719: 1912, 1921-25, 1927-32, 1936. WSP 2137: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 3,420 ft above mean sea level, by barometer. Prior to May 26, 1910, nonrecording gage at site 300 ft downstream at different datum.

REMARKS.--Records computed by Roy Taogoshi. Records good. No diversion upstream.

AVERAGE DISCHARGE.--87 years (water years 1912, 1914, 1920-2004), 34.2 ft<sup>3</sup>/s (24,790 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,300 ft<sup>3</sup>/s, January 13, 1967, gage height, 15.33 ft, from rating curve extended above 470 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 12.12 ft and 13.43 ft; minimum, 1.14 ft<sup>3</sup>/s, September 21, 22, 1953.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,100 ft<sup>3</sup>/s and maximum (\*):

| Date   | Time | Discharge<br>(ft <sup>3</sup> /s) | Gage height<br>(ft) | Date | Time | Discharge<br>(ft <sup>3</sup> /s) | Gage height<br>(ft)                        |
|--------|------|-----------------------------------|---------------------|------|------|-----------------------------------|--|
| Feb 27 | 0515 | *2,720                            | *8.59               |      |      |                                   | No other peak greater than base discharge. |

Minimum discharge, 1.9 ft<sup>3</sup>/s, Oct. 1, 2, gage height, 1.83 ft.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

| DAY   | OCT   | NOV   | DEC     | JAN     | FEB     | MAR    | APR   | MAY   | JUN     | JUL   | AUG   | SEP   |
|-------|-------|-------|---------|---------|---------|--------|-------|-------|---------|-------|-------|-------|
| 1     | 1.9   | 15    | 198     | 171     | 12      | 273    | 83    | 23    | 10      | 25    | 6.1   | 8.6   |
| 2     | 4.1   | 9.9   | 234     | 26      | 10      | 287    | 239   | 17    | 9.3     | 19    | 22    | 8.7   |
| 3     | 16    | 8.1   | 114     | 18      | 9.2     | 44     | 357   | 15    | 14      | 17    | 65    | 8.5   |
| 4     | 22    | 7.1   | 68      | 14      | 13      | 99     | 240   | 33    | 10      | 15    | 98    | 6.8   |
| 5     | 20    | 6.7   | 38      | 12      | 65      | 50     | 106   | 71    | 11      | 12    | 15    | 108   |
| 6     | 6.0   | 6.2   | 26      | 11      | 21      | 24     | 50    | 20    | 20      | 18    | 9.2   | 66    |
| 7     | 43    | 7.1   | 52      | 9.9     | 19      | 212    | 36    | 20    | 27      | 17    | 7.4   | 21    |
| 8     | 27    | 7.5   | 122     | 9.8     | 24      | 280    | 31    | 21    | 132     | 10    | 7.0   | 11    |
| 9     | 62    | 6.0   | 63      | 9.1     | 11      | 38     | 176   | 31    | 96      | 9.2   | 6.6   | 9.5   |
| 10    | 13    | 5.2   | 58      | 8.5     | 10      | 69     | 47    | 32    | 100     | 8.6   | 6.6   | 12    |
| 11    | 7.4   | 5.3   | 43      | 8.1     | 9.1     | 37     | 34    | 17    | 79      | 8.4   | 31    | 12    |
| 12    | 8.1   | 5.9   | 21      | 19      | 8.9     | 24     | 26    | 40    | 61      | 7.9   | 50    | 67    |
| 13    | 22    | 32    | 18      | 10      | 8.2     | 694    | 31    | 32    | 78      | 7.9   | 22    | 37    |
| 14    | 10    | 45    | 16      | 490     | 7.5     | 87     | 26    | 97    | 47      | 7.9   | 11    | 54    |
| 15    | 51    | 43    | 13      | 30      | 27      | 37     | 31    | 58    | 21      | 41    | 8.1   | 17    |
| 16    | 40    | 18    | 12      | 19      | 16      | 52     | 102   | 38    | 30      | 26    | 7.1   | 13    |
| 17    | 9.8   | 13    | 40      | 15      | 8.7     | 55     | 36    | 25    | 56      | 11    | 6.6   | 23    |
| 18    | 6.5   | 9.7   | 16      | 13      | 7.6     | 41     | 25    | 19    | 83      | 21    | 6.2   | 40    |
| 19    | 5.2   | 35    | 13      | 11      | 6.9     | 29     | 20    | 17    | 256     | 21    | 5.8   | 76    |
| 20    | 9.0   | 18    | 11      | 11      | 6.5     | 348    | 21    | 15    | 69      | 10    | 5.3   | 37    |
| 21    | 16    | 29    | 9.6     | 11      | 6.3     | 124    | 43    | 15    | 39      | 7.9   | 10    | 26    |
| 22    | 8.0   | 74    | 8.9     | 106     | 6.0     | 334    | 28    | 15    | 68      | 7.0   | 11    | 27    |
| 23    | 5.9   | 146   | 8.4     | 107     | 5.8     | 450    | 20    | 12    | 60      | 6.5   | 15    | 30    |
| 24    | 4.6   | 40    | 8.3     | 20      | 5.6     | 694    | 17    | 11    | 28      | 6.3   | 19    | 28    |
| 25    | 4.7   | 21    | 7.8     | 15      | 5.5     | 230    | 145   | 11    | 20      | 6.1   | 55    | 31    |
| 26    | 4.1   | 17    | 7.4     | 40      | 12      | 70     | 295   | 10    | 17      | 6.5   | 20    | 18    |
| 27    | 4.1   | 15    | 17      | 18      | 756     | 44     | 34    | 14    | 15      | 21    | 16    | 13    |
| 28    | 250   | 11    | 79      | 15      | 155     | 420    | 43    | 30    | 13      | 14    | 23    | 11    |
| 29    | 63    | 9.7   | 21      | 13      | 30      | 175    | 24    | 18    | 22      | 9.7   | 22    | 9.5   |
| 30    | 36    | 8.8   | 109     | 16      | ---     | 71     | 21    | 11    | 20      | 7.0   | 49    | 8.9   |
| 31    | 15    | ---   | 32      | 11      | ---     | 43     | ---   | 9.5   | ---     | 6.1   | 12    | ---   |
| TOTAL | 795.4 | 675.2 | 1,484.4 | 1,287.4 | 1,282.8 | 5,435  | 2,387 | 797.5 | 1,511.3 | 411.0 | 648.0 | 838.5 |
| MEAN  | 25.7  | 22.5  | 47.9    | 41.5    | 44.2    | 175    | 79.6  | 25.7  | 50.4    | 13.3  | 20.9  | 27.9  |
| MAX   | 250   | 146   | 234     | 490     | 756     | 694    | 357   | 97    | 256     | 41    | 98    | 108   |
| MIN   | 1.9   | 5.2   | 7.4     | 8.1     | 5.5     | 24     | 17    | 9.5   | 9.3     | 6.1   | 5.3   | 6.8   |
| AC-FT | 1,580 | 1,340 | 2,940   | 2,550   | 2,540   | 10,780 | 4,730 | 1,580 | 3,000   | 815   | 1,290 | 1,660 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 2004, BY WATER YEAR (WY)

|      |        |        |        |        |        |        |        |        |        |        |        |        |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MEAN | 21.4   | 44.7   | 52.6   | 53.1   | 41.6   | 49.4   | 46.2   | 27.0   | 17.4   | 23.0   | 21.2   | 14.4   |
| MAX  | 60.3   | 170    | 176    | 343    | 165    | 175    | 115    | 86.2   | 68.7   | 94.7   | 195    | 58.1   |
| (WY) | (1917) | (1929) | (1968) | (1921) | (1956) | (2004) | (1980) | (1927) | (1978) | (1989) | (1950) | (1992) |
| MIN  | 3.34   | 4.16   | 11.9   | 3.23   | 4.26   | 6.15   | 5.74   | 3.38   | 3.58   | 5.18   | 2.54   | 1.86   |
| (WY) | (1985) | (1964) | (2003) | (1945) | (1945) | (1926) | (1992) | (1966) | (1951) | (1922) | (1984) | (1953) |

## HAWAII, ISLAND OF KAUAI

16010000 KAWAIKOI STREAM NEAR WAIMEA—Continued

| SUMMARY STATISTICS       | FOR 2003 CALENDAR YEAR | FOR 2004 WATER YEAR | WATER YEARS 1911 - 2004 |
|--------------------------|------------------------|---------------------|-------------------------|
| ANNUAL TOTAL             | 8,213.2                | 17,553.5            |                         |
| ANNUAL MEAN              | 22.5                   | 48.0                | 34.2                    |
| HIGHEST ANNUAL MEAN      |                        |                     | 60.7                    |
| LOWEST ANNUAL MEAN       |                        |                     | 15.3                    |
| HIGHEST DAILY MEAN       | 365                    | Feb 13              | 2,620                   |
| LOWEST DAILY MEAN        | 1.9                    | Sep 30              | Jan 15, 1921            |
| ANNUAL SEVEN-DAY MINIMUM | 2.4                    | Sep 18              | Sep 21, 1953            |
| ANNUAL RUNOFF (AC-FT)    | 16,290                 | 34,820              | Sep 17, 1953            |
| 10 PERCENT EXCEEDS       | 43                     | 103                 | 24,790                  |
| 50 PERCENT EXCEEDS       | 9.7                    | 19                  | 74                      |
| 90 PERCENT EXCEEDS       | 3.6                    | 7.0                 | 13                      |
|                          |                        |                     | 4.3                     |